### Energy Storage Project Team Overview







Peer Review 2018 Santa Fe, NM Daniel Borneo 2018



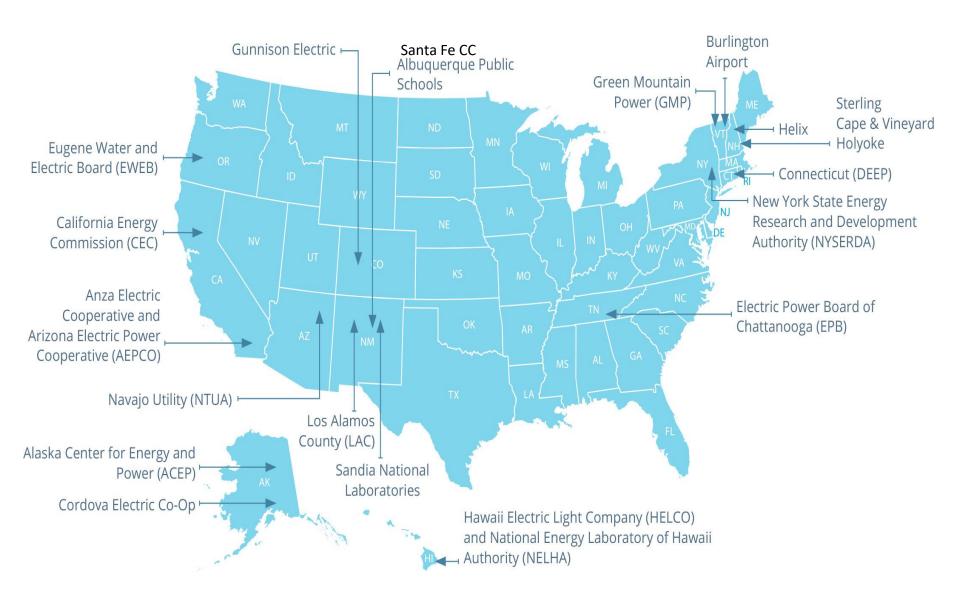
## DOE OE Energy Storage Projects and Analysis Team

### What We Do and Why

- Work with Utility, Industrial, State and International entities to:
  - Provide independent analysis for Energy Storage Implementation
    - Application(s) benefit and ROI analysis
    - Power and energy requirements
    - Technology review and system testing
  - Support the development and implementation of grid-tied ES projects
    - RFI/RFP development
    - Design and Procurement Support
    - Application/Economic analysis
    - Commissioning Plan Development
  - Monitor and analyze operational ES Projects
    - Application optimization
    - · Operational performance
  - ES Control Lab New in 2018
    - Multiple ES systems up to 1 MWh ES storage system
    - · Remote Project Data gathering and operation monitoring
    - · Energy, battery and grid control theory and optimization development
  - Develop public information programs
    - Webinars
    - Workshops and presentations
- Goal
  - Safe, Reliable, and Effective ESS
  - Inform the Public and encourage investment.

# DOE/SNL Energy Storage Projects





# Energy Storage Projects Team/Partners

#### Project Team

- Ben Schenkman Eugene, Cordova, Sandia control lab, Helix, EPB, NELHA, Ct. DEEP, PNM, Burlington
- Frank Currie NTUA, ANZA, Los Alamos, APS, Gunnison
- Tu Nguyen Analysis ANZA, APS, Gunnison
- Todd Olinsky-Paul CESA's ESTAP Program
- Cole Benson Intern Extraordinaire

#### Project Partners

- NELHA Laurence Sombardier
- SFCC Stephen Gomez
- Cordova Clay Koplin/Craig Kuntz
- Helix Matt Lazarewicz
- ANZA Barry Brown
- SMLD Sean Hamilton
- NRECA Venkat Banunarayanan
- California Energy Commission Mike Gravely
- NTUA Derrick Terry
- EPB Jim Glass
- EWEB Matt Ibaraki
- Burlington Electric Casey Lamont

Red – Presenting (Presentation and/or Poster)



# Thanks

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